

REMARKS

In view of the preceding amendments and the comments which follow, and pursuant to 37 CFR §1.116, amendment and reconsideration of the Official Action of August 9, 2004 is respectfully requested by Applicants.

A Claims Listing dated September 22, 2004 has been submitted herewith.

Claims 16, 20, and 21 have been amended in order to place them in condition for allowance; claim 22 has been cancelled. No new matter has been added by way of the present amendments.

Claims 6, 7, 16, 19-21, and 23 remain pending.

Allowance of claims

Applicants acknowledge with appreciation that the Examiner has indicated that claims 6 and 7 are allowable.

Priority

The Examiner has noted that Applicants have not filed a certified copy of the priority application as required by 35 USC 119 (b).

In response, a certified copy of the priority document DE 10036941.8 is being filed concurrently herewith.

Claim Objection

The Examiner has objected to claim 16, step (c), because only a part of the term “a resistance gene” had been deleted.

By way of the present amendment, Applicants have deleted the word “gene” from claim 16, step (c), thereby overcoming the objection. Reconsideration is respectfully requested.

Rejections under 35 USC §112, first paragraph

Claim 22 has been rejected based upon Applicants’ previous amendment. Since claim 22 is now canceled by way of the present amendment, the rejection is now moot.

The rejection of claims 16 and 19-23 from a previous action has been maintained. Claims 16 and 19-23 have been rejected under 35 USC §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner argues that claims 16 and 19-23 read on a genus of eukaryotic alkaline phosphatase genes, but that Applicants have only disclosed an alkaling phosphatase encoded by SEQ ID NO: 1 and SEQ ID NO: 5. It is the Examiner’s position that the disclosure of one species would not represent to the skilled artisan a representative number of species sufficient to show Applicants were in possession of the claimed genus. The Examiner states that it would be remedial to amend the claims to recite “alkaline phosphatase coding sequence” or “sequence encoding alkaline phosphatase”.

As now amended, claims 16 and 20, 21, and 23 depending therefrom, are limited to an “alkaline phosphatase coding sequence” selected from the group consisting of SEQ ID NO: 1 and SEQ ID NO: 5. The claims having been thus amended, the Examiner’s

grounds for rejection have been overcome, and reconsideration of the rejection is respectfully requested by Applicants.

Rejections under 35 USC §112, second paragraph

Claims 20 and 22 have been rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

The Examiner argues that claim 20 is vague and indefinite in that the metes and bounds of “yeast cells are from *Pichia pastoris* or *Hansenula polymorpha*” are unclear. By recitation of “from”, it is unclear if the calls are actually *Pichia pastoris* or *Hansenula polymorpha* or are “from” these cells.

By way of the present amendment, Applicants have amended claim 20 by deleting the word “from”. Claim 22 has been cancelled. The rejection having thus been overcome, the Examiner’s reconsideration is respectfully requested.

Applicants submit that their application is now in condition for allowance, and favorable reconsideration of their application in light of the above amendments and remarks is respectfully requested. Allowance of claims 6, 7, 16, 19-21, and 23 at an early date is earnestly solicited.

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The Examiner is hereby authorized to charge any fees associated with this
Amendment to Deposit Account No. 02-2958. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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(previously cancelled)

6. (previously amended) A DNA sequence comprising the sequence of SEQ ID NO: 5.

7. (previously amended) A transformation vector comprising the sequence of SEQ ID NO: 5.

8-15. (previously cancelled)

16. (currently amended) A process for selecting yeast transformants useful in the production of a eukaryotic alkaline phosphatase, said process comprising the steps of:

- (a) transforming yeast cells with a vector comprising a first marker gene encoding resistance to a first antibiotic and an alkaline phosphatase ~~gene comprising a coding sequence~~ selected from the group consisting of SEQ ID NO: 1 and SEQ ID NO: 5;
- (b) selecting transformants that grow in medium containing a first concentration of the first antibiotic;
- (c) further transforming the selected transformants with a vector comprising ~~gene~~ the first marker and the alkaline phosphatase gene coding sequence;
- (d) identifying transformants that have incorporated multiple copies of the alkaline phosphatase gene coding sequence by selecting those transformants that grow in medium containing a second concentration of the first antibiotic, said second concentration being higher than the first concentration;
- (e) further transforming the identified transformants with a vector comprising a second marker gene ~~for~~ encoding resistance to a second antibiotic and the alkaline phosphatase gene coding sequence; and
- (f) selecting transformants that grow in medium containing the second antibiotic.

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17. (previously cancelled)
18. (previously cancelled)
19. (previously amended) The process as claimed in claim 16, wherein the yeast cells are methylotrophic.
20. (currently amended) The process as claimed in claim 16, wherein the yeast cells are ~~from~~ Pichia pastoris or Hansenula polymorpha.
21. (currently amended) The process as claimed in claim 16, wherein the transformants that grow in medium containing the second antibiotic are transformed at least once more with a vector comprising the second marker gene and the alkaline phosphatase gene coding sequence and the transformants that grow in medium containing the second antibiotic are selected.
22. (currently cancelled)
23. (previously amended) A process for the production of a eukaryotic alkaline phosphatase in yeast cells comprising the steps of selecting a transformant according to the process of claim 16, expressing the alkaline phosphatase, and purifying the alkaline phosphatase.